

REMARKS

Applicants have carefully considered the May 18, 2005 Office Action, and the amendments above together with the comments that follow are presented in a bona fide effort to address all issues raised in that Action and thereby place this case in condition for allowance. Claims 1-25 are pending in this application. Claims 12, 16, 18, 20 and 22 have been withdrawn from consideration pursuant to the provisions of 37 C.F.R. § 1.142(b).

In response to the Office Action dated May 18, 2005, claim 1 has been amended for clarity and new claim 26 has been added. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure as, for example, the depicted embodiments and related discussion thereof in the written description of the specification. Applicants submit that the present Amendment does not generate any new matter issue. Entry of the present Amendment is respectfully solicited. It is believed that this response places this case in condition for allowance. Hence, prompt favorable reconsideration of this case is solicited.

Claims 1-11, 13-15, 17 19, 21 and 23-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizunoya et al. (U.S. Pat. No. 5,731,068, hereinafter “Mizunoya”). Applicants respectfully traverse. Moreover, new claim 26 is free from the applied art for the reasons set forth below.

As admitted by the Examiner on page 3 of the Office action, Mizunoya (col. 9, lines 15-42) discloses that during vapor deposition of the metal films, an oxidizing gas is introduced to form an oxide protective layer. In contrast, independent claims 1 and 26 describe, *inter alia*, a method of manufacturing a magnetic recording medium, comprising **sequential steps** of: (a) providing an apparatus for manufacturing the medium; (b) supplying the apparatus with a

substrate for the medium; (c) forming a magnetic recording layer on the substrate in a first portion of the apparatus; (d) treating the magnetic recording layer, as deposited on the substrate in step (c), with oxygen gas in a second portion of the apparatus. Independent claim 24 describes, *inter alia*, a method of manufacturing a magnetic recording medium according to a continuous process, comprising **sequential steps** of: (a) providing at least one substrate for the magnetic recording media; (b) providing an apparatus adapted for continuous manufacturing of the magnetic recording media, comprising at least first, second, and third spaced-apart, serially arranged processing chambers and including means for transporting the at least one substrate serially through at least the first, second, and third spaced-apart processing chambers; (c) transporting the substrate through the first processing chamber while forming a magnetic recording layer thereon; (d) transporting the substrate with the magnetic recording layer formed thereon to the second processing chamber; (e) transporting the substrate through the second processing chamber while treating said magnetic recording layer with oxygen gas. Thus, both independent claims 1, 24 and 26 clearly describe that the magnetic recording layer, **as deposited**, is next subjected to an oxygen gas treatment. The present claimed methods are patentably distinct from the applied reference since Mizunoya discloses an oxygen treatment during deposition of the magnetic recording medium.

Moreover, as described in the written description of the specification at page 24, higher negative nucleation fields (-H_n) and resultant improved thermal stability of magnetic recording media can be obtained by subjecting the magnetic recording layer, as deposited, to the inventive *in situ* post-deposition oxygen gas treatment, wherein the magnetic recording layer is exposed, at a sub-atmospheric pressure and for a relatively short interval, to a small amount of O₂ gas admixed with a larger amount of at least one inert carrier (diluent) gas, e.g., Ar and/or N₂ prior to

formation of the protective overcoat layer thereon. The relatively short duration of the *in situ* post-deposition treatment process necessary for obtaining a desired improvement in the performance characteristics of the media is fully compatible with the product throughput (e.g., cycle) requirements of automated apparatus for industrial-scale manufacture of magnetic recording media, e.g., hard disks.

It is well established that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge readily available to one of ordinary skill in the art. *In re Kotzab*, 217 F.3d 1365, 1370 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

The Examiner has the initial burden of establishing a *prima facie* basis to deny patentability to the claimed invention under any statutory provision. *In re Mayne*, 104 F.3d 1339, 41 USPQ2d 1451 (Fed. Cir. 1997); *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The Examiner's position is factually erroneous because the primary reference never mentions or even remotely suggests the step of oxygen treatment after the deposition of the magnetic recording medium on the substrate. The Examiner has not discharged the initial burden by proffering any objective evidence as to the claimed methodology as described in independent claims 1, 24 and 26. The requisite fact-based motivation to modify the methodology of the applied reference has not been established. Rather, the only motivation is found in Applicant's disclosure which, of course, is forbidden territory upon which the Examiner may excavate for the requisite realistic motivational element. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 227 1 USPQ2d 1593 (Fed. Cir. 1987).

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In view of the foregoing, Applicants respectfully submit that the conclusion appears inescapable that one having ordinary skill in the art would not have found the claimed subject matter as a whole obvious within the meaning of 35 U.S.C. § 103. *In re Piasecki*, 745 F.2d 1468, 223 U.S.P.Q. 785 (Fed. Cir. 1984). Accordingly, 1-11, 13-15, 17, 19, 21 and 23-25 are free from the applied art. The imposed rejection of claims 1-11, 13-15, 17, 19, 21 and 23-25 under 35 U.S.C. § 103 for obviousness predicated upon Mizunoya is not factually or legally viable and, hence, should be withdrawn.

It is believed that pending claims 1-11, 13-15, 17, 19, 21 and 23-26 are now in condition for allowance. Applicants therefore respectfully request an early and favorable reconsideration and allowance of this application. If there are any outstanding issues which might be resolved by an interview or an Examiner's amendment, the Examiner is invited to call Applicants' representative at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Brian K. Seidleck
Registration No. 51,321

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 BKS:idw
Facsimile: 202.756.8087
Date: **August 17, 2005**

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as our correspondence address.**